

**I. Response to Claim Rejection under 35 U.S.C. § 102**

Claims 1, 2 and 6 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Igarashi et al (U.S. Patent No. 5,990,546) for the reasons of record.

In response to the arguments made in the Amendment filed on July 25, 2006, the Examiner takes the position that element 33 in Igarashi et al is a bonding sheet by virtue of it being an epoxy resin in sheet form. Further, the Examiner states that the material recited in instant claim 6 is consistent with the material of Igarashi et al.

Applicants have previously pointed out that the material for the bonding sheet material in Figure 5(B) is not disclosed in the reference. That is, nowhere in Igarashi et al does it state that bonding sheet 33 is an epoxy resin. Therefore, the Examiner has not set forth a reasonable basis for asserting that the sheet material is rubber and inherently has at least some tackiness. As pointed out in the arguments presented in the Amendment filed on October 25, 2005, Igarashi et al teaches that the semiconductor chip is sealed by bonding a bonding sheet using an epoxy-rubber resin as a bonding agent. This does not mean that the bonding sheet itself is an epoxy rubber resin and therefore it does not follow that the bonding sheet contains rubber and necessarily has tackiness. Rather, the use of the epoxy-rubber resin as a bonding agent suggests to one of ordinary skill in the art that the bonding sheet itself does not have tackiness.

Further, there is no description in Igarashi et al which teaches or suggests that the bonding sheet itself contains rubber or has tackiness. Searching the full text of Igarashi et al, the term "rubber" is used only at lines 21 and 37 of column 7 within the context of "a bonding seat

[sic] 33 (e.g., epoxy-rubber resin as bonding agent (emphasis added)". Thus, a sheet having rubber therein is not taught or suggested.

In addition to the above, Applicants respectfully submit an executed Declaration by Mr. Hideyuki Usui, one of the co-inventors named in Igarashi et al in support of the position that Igarashi et al does not teach an epoxy rubber bonding sheet as asserted by the Examiner. Specifically, in the Declaration Mr. Usui confirms that the bonding sheet 33 of Igarashi et al uses an epoxy rubber resin as a bonding agent which makes it clear to one of ordinary skill in the art that the bonding sheet 33 of Igarashi et al does not itself contain a rubber and does not necessarily have tackiness as asserted by the Examiner. Additionally, Mr. Usui explains that there is a difference between the bonding agent of Igarashi et al and the bonding sheet of Igarashi et al.

Further, Mr. Usui confirms that there is no disclosure, teaching or suggestion of a thermosetting bonding sheet in Igarashi et al.

The present invention is characterized in that a thermosetting sheet material having tackiness is used. A sheet which does not have thermosetting properties cannot be used in the intended application (the field in which appropriate level of thermosetting property is required). Moreover, a mere thermosetting sheet having no tackiness does not exert the effects of the present invention. In view of the above, Igarashi et al does not disclose, teach or suggest a thermosetting sheet having tackiness as recited in present claim 1. Therefore, Igarashi et al does

not disclose, teach or suggest at least two characteristics of the present invention and cannot be said to anticipate nor render obvious the present claims.

Claims 2 and 6 includes the same distinguishing recitations as claim 1 and are distinguished over the art for at least the same reasons as claim 1. Further, Igarashi et al does not specifically disclose a rubber-containing or rubber-modified polycarbodiimide resin and therefore claim 6 is not anticipated nor rendered obvious by the art of record.

Applicants respectfully submit that the Examiner must consider the totality of the evidence provided on the record, which establishes that Igarashi et al does not disclose, teach or suggest a thermosetting bonding sheet having tackiness as recited in claim 1. The ultimate determination of patentability is based on the entire record, by a preponderance of evidence, with due consideration to the persuasiveness of any arguments and any secondary evidence. See MPEP § 2142 citing *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The legal standard of "a preponderance of evidence" requires the evidence to be more convincing than the evidence which is offered in opposition to it. When an Applicant submits evidence, whether in the specification as originally filed or in reply to a rejection, the Examiner must reconsider the patentability of the claimed invention and the decision on patentability must be made based upon consideration of all the evidence, including the evidence submitted by the Examiner and the evidence submitted by the Applicant. A decision to make or maintain a rejection in the face of all the evidence must show that it was based on the totality of the evidence. Facts established by rebuttal evidence must be evaluated along with the facts on which the conclusion was reached,

not against the conclusion itself. See MPEP § 2142 citing *In re Eli Lilly & Co.*, 902 F.2d 943, 14 USPQ2d 1741 (Fed. Cir. 1990).

In this case, the Examiner has made statements regarding the disclosure of Igarashi et al which are contradicted by objective evidence of the teachings of Igarashi et al itself as well as the knowledge and skill available in the art and the Declaration of Mr. Usui submitted herewith. The Examiner has not offered any factual evidence in support of his position regarding the material of the bonding sheet of Igarashi et al and that the bonding sheet of Igarashi et al necessarily has tackiness. Accordingly, the evidence presented by Applicants is more convincing than the mere statements of the Examiner which are not based on the actual disclosure of the reference and therefore patentability of the present claims is supported by a preponderance of the evidence when the totality of the record is properly taken into consideration.

Accordingly, Applicants respectfully request withdrawal of the §102 rejection.

## **II. Response to Claim Rejection under 35 U.S.C. § 103**

Claim 7 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Igarashi et al.

Applicants respectfully traverse the rejection and submit that Igarashi et al does not disclose, teach or suggest a thermosetting sheet material having tackiness as recited in present

claim 1 from which claim 7 depends. Therefore, for at least this reason claim 7 is distinguished over the art of record.

Additionally, since Igarashi et al does not teach or suggest a thermosetting sheet material having tackiness, there is no motivation for one of ordinary skill in the art to modify the disclosure of Igarashi et al to arrive at the tackiness of the sheet material before thermosetting of 2 to 15 in terms of ball tack as recited in present claim 7. For this additional reason, claim 7 is distinguished over the art of record.

Accordingly, Applicants respectfully request withdrawal of the §103 rejection.

### **III. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Response under 37 C.F.R. § 1.116  
U.S. App. Ser. No. 10/752,700

Q79277

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

**65565**

CUSTOMER NUMBER

  
Jennifer M. Hayes  
Registration No. 40,641

Date: January 5, 2007